



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,439	08/30/2000	Douglas B. Moran	RECOP011	2559
21912	7590	01/11/2005	EXAMINER	
VAN PELT & YI LLP 10050 N. FOOTHILL BLVD #200 CUPERTINO, CA 95014			HENEGHAN, MATTHEW E	
			ART UNIT	PAPER NUMBER
			2134	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 09/651,439	Applicant(s) MORAN, DOUGLAS B.	
	Examiner Matthew Heneghan	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
6) <input type="checkbox"/> Other: _____. |
|--|--|

DETAILED ACTION

1. In response to the previous office action, claim 1, 7, 16, and 17 have been amended and claim 4 has been cancelled. Claims 1-3 and 5-17 have been examined.

Response to Amendment

2. The amendment filed 12 July 2004 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The analysis engine in claim 1 has been amended to comprise a processor. Though Applicant's specification suggests that the analysis functionality could be executed on a processor, no suggestion is made that the analysis engine itself comprise a processor.

Applicant is required to cancel the new matter in the reply to this Office Action.

Priority

The following is a quotation of the appropriate part of 35 U.S.C. 120:

An application for patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, or as provided by section 363 of this title, which is filed by an inventor or inventors named in the previously filed application shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application.

3. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows: the application to which the instant application has been filed as a continuation, U.S. Patent Application No. 09/615,697, is unrelated to the instant application.

Applicant had previously claimed priority to U.S. Patent Application No. 09/615,967, filed 14 July 2000, which is a related application, but with which the instant application has no inventors in common.

Drawings

4. The drawings were received on 12 July 2004. These drawings are acceptable.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-3 and 5-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

Art Unit: 2134

had possession of the claimed invention. The analysis engine in claim 1 has been amended to comprise a processor. Though Applicant's specification suggests that the analysis functionality could be executed on a processor, no suggestion is made that the analysis engine itself comprise a processor. For purposes of this examination, it is being presumed that the analysis engine is simply executed using a processor.

Claims 2, 3, and 5-15 depend from rejected claim 1, and include all the limitations of that claim, thereby rendering those dependent claims as failing to comply with the written description requirement.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 16 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The language of the claims raises a question as to whether the claims are directed merely to abstract ideas that are not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. See MPEP §2106 IV.B2(c).

7. To expedite a complete examination of the instant application the claims rejected under 35 U.S.C. 101 (nonstatutory) and 35 U.S.C. 112 above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1-3, 5, 6, and 8-17 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent No. 5,694,590 to Thuraisingham et al.

As per claims 1, 3, and 16, Thuraisingham uses a rules-based knowledge engine for analyzing collected data (see column 2, line 38 to column 3, line 16 and claim 2), and uses forward-chaining (rule-based reasoning) to infer goals reached and backward-chaining (goal-based reasoning) to determine infer additional goals from inferred goals (see column 17, lines 15-43 and column 24, lines 17-42) to detect security violations, which constitute intrusions (see column 2, lines 38-40). The backward-chaining, described above, has a goal defined in the ACTION part and sub-goals defined in the CONDITION part. Each process is executed on a processor (see column 13, lines 5-7).

As per claim 2, the use of frame-based reasoning allows a limitation on the length of chaining (see column 17, line 59 to column 18, line 7).

As per claims 5 and 6, the invention uses reliability values, which are confidence factors (see column 20, lines 39-51).

As per claim 8, the use of fuzzy reasoning with forward-chaining would result in the use of scores for determining goals.

As per claim 9, the system is designed to detect computer security violations (see abstract).

As per claims 10 and 11, multiple levels of nets are disclosed, which are sources of facts (see column 4, line 66 to column 5, line 7 and column 7 lines 43-51), and are inputted in the Knowledge Acquisition process (see column 16, line 50 to column 17, line 15). Indirect facts are produced by the Truth Maintenance System (see column 21, lines 17-61).

As per claim 12, all phases of an attack can be analyzed.

As per claim 13, fuzzy reasoning is designed to address incomplete facts.

As per claims 14 and 15, there is a user interface capable of accepting and communicating all pertinent information (see abstract).

As per claim 17, computer implementations are disclosed (see columns 23 and 24).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,694,590 to Thuraisingham et al. as applied to claim 5 above, and further in view of Tanenbaum, "Operating Systems Design and Implementation," 1987, pp. 58-59.

Thuraisingham does not explicitly disclose the use of continuations in arbitrating among processes.

Tanenbaum discloses the use of SLEEP and WAKEUP to temporarily halt a process while waiting for another to complete the use of a critical section, as illustrated by a "producer-consumer" problem. Tanenbaum further notes that not doing so wastes CPU time.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the system of Thuraisingham by using SLEEP and WAKEUP for scheduling processes, as to not do so would waste CPU time.

Response to Arguments

10. Applicant's arguments filed 12 July 2004 have been fully considered but they are not persuasive. Thuraisingham clearly describes the use of both forward-chaining and

backward-chaining in the cited portions of the disclosure in an enabling manner. The two methods of reasoning are discussed together and may be used together.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan, whose telephone number is (571) 272-3834. The examiner can normally be reached on Monday, Tuesday, Thursday, and Friday from 8:30 AM - 4:30 PM Eastern Time.

Art Unit: 2134

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse, can be reached at (571) 272-3838.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

Or faxed to:

(703) 872-9306

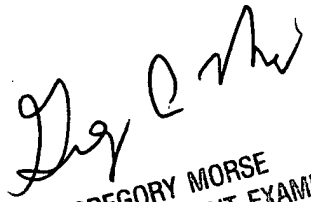
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MEH



December 30, 2004



GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100